STEELMAX® d2

Portable Magnetic Drilling Machine

OPERATOR'S MANUAL

WARNING!

BEFORE USE, BE SURE EVERYONE USING THIS MACHINE READS AND UNDERSTANDS ALL SAFETY AND OPERATING INSTRUCTIONS IN THIS MANUAL.

EYE PROTECTION REQUIRED

HEARING PROTECTION REQUIRED

NEVER PLACE FINGERS NEAR CUTTING AREA OR MACHINE ARBOR

LINE VOLTAGE PRESENT

BEWARE OF ROTATING MACHINE PARTS

MODEL #SM-D2

Serial # _____ Date of Purchase _____

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SteelMax® d2 Portable Magnetic Drilling Machine

Congratulations on your purchase of a SteelMax portable magnetic drilling machine. SteelMax drilling machines are designed to deliver fast, efficient hole drilling performance in portable applications. SteelMax drills are fast becoming the most cost effective and efficient way to drill holes not only at steel fabricating workshops or steel building sites, but also at virtually every factory maintenance workshop, truck manufacturer & repair company, military equipment service, onboard ship maintenance shop, etc.

The full advantages of your SteelMax electromagnetic drilling machine can only be achieved with optimal tooling. Milling cutters are designed and manufactured specifically for use with these machines and offer a wide range of advantages, such as 2 inch diameter holes through 2 inch steel, in one pass and with precision not otherwise attainable without heavy stationary equipment. This performance advantage has been virtually impossible in a drill with the size and weight of the SteelMax d2 until now.

The SteelMax d2 provides the latest state of the art features in portable drilling equipment. Among the features are a no-maintenance rail system that eliminates older gib type systems, which lowers maintenance and maximizes the life of your SteelMax annular cutters. Energy saving and safety features are also provided through the use of a powerful new generation, low heat electromagnet with Condensed Magnetic Flux (CMF) and magnetic field control system. This new system provides safety, energy saving, maintenance, weight and operational advantages over other brand drills.

Please take a moment to complete and mail your product warranty registration card. Doing so will validate your machine's warranty period and ensure prompt service if needed.

LIMITED WARRANTY

LIMITED WARRANTY

STEELMAX TOOLS RESERVES THE RIGHT TO MAKE IMPROVEMENTS AND MODIFICATIONS TO DESIGN WITHOUT PRIOR NOTICE.

STEELMAX TOOLS, L.L.C. will, within twelve (12) months from the original date of purchase, repair or replace any goods found to be defective in materials or workmanship, provided the product warranty registration card has been returned to STEELMAX TOOLS within thirty (30) days of purchase date. This warranty is void if the tool being returned has been used to drill materials beyond the recommendations in the Owner's Operating Manual or if the drill has been damaged by accident, neglect, improper service, or other causes not arising out of defects in materials or workmanship. This warranty does not apply to machines and/or components which have been altered, changed, or modified in any way, or subjected to use beyond recommended capacities and specifications. Electrical components are subject to respective manufacturers' warranties. All goods returned defective shall be returned prepaid freight to STEELMAX TOOLS, which shall be the buyer's sole and exclusive remedy for defective goods. STEELMAX TOOLS reserves the right to optionally repair or replace it with the same or equivalent item. There is no warranty – written or verbal - for annular cutters. In no event shall STEELMAX TOOLS be liable for loss or damage resulting directly or indirectly from the use of merchandise or from any other cause. STEELMAX TOOLS is not liable for any costs incurred on such goods or consequential damages. No officer, employee or agent of STEELMAX TOOLS is authorized to make oral representations of fitness or to waive any of the foregoing terms of sale and none shall be binding on STEELMAX TOOLS.

Questions relating to this limited warranty should be directed to the company's head office in Centennial, CO or call toll free 1-877-284-2928.

IMPORTANT SAFETY INSTRUCTIONS

! WARNING!

WHEN USING ELECTRIC TOOLS, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE RISK OF FIRE, ELECTRIC SHOCK AND PERSONAL INJURY.

READ AND SAVE ALL INSTRUCTIONS FOR FUTURE REFERENCE.

1. **Never Remove Swarf With Bare Hands**
   - Use a tool designed for the job to avoid injuries.

2. **Never Touch Spindle During Operation**
   - Cutters are extremely sharp and can cause serious injuries.

3. **Keep Work Area Clean**
   - Cluttered areas and benches invite injuries.

4. **Consider Work Area Environment**
   - Do not expose power tools to rain.
   - Do not use power tools in damp or wet locations.
   - Keep work area well lit.
   - Do not use tool in presence of flammable liquids or gases.

5. **Guard Against Electric Shock**
   - Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges and refrigerator enclosures.

6. **Keep Children Away**
   - Do not let visitors contact tool or extension cord.
   - All visitors should be kept away from work area.

7. **Store Idle Tools**
   - When not in use, tools should be stored in a dry, high and locked-up place, out of reach of children.

8. **Do Not Force Tool**
   - It will do the job better and safer at the rate for which it was intended.

9. **Use Right Tool**
   - Do not force a small tool or attachment to do the job of a heavy-duty tool.
   - Do not use tool for unintended purpose.

10. **Dress Properly**
    - Do not wear loose clothing or jewelry. They can be caught in moving parts.
    - Rubber gloves and non-skid footwear are recommended when working outdoors. Never wear gloves near rotating machine parts.
    - Wear protective hair covering to contain long hair.

11. **Use Safety Glasses and Hearing Protection**
    - Also use face or dust mask if cutting operation is dusty.

12. **Do Not Abuse Electrical Cord**
    - Never carry tool by cord or yank it to disconnect from receptacle.
    - Keep cord from heat, oil and sharp edges.

13. Secure Work
- Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.

14. Do Not Overreach
- Keep proper footing and balance at all times.

15. Maintain Tools With Care
- Keep tools sharp and clean for better and safer performance.
- Follow instructions for lubricating and changing accessories.
- Inspect tool cords periodically and if damaged, have repaired by authorized service facility.
- Inspect extension cords periodically and replace if damaged.
- Keep handles dry, clean, and free from oil and grease.

16. Disconnect Tools Prior to Service
- Unplug when not in use, before servicing, and when changing accessories, such as blades, bits and cutters.

17. Remove Adjusting Keys And Wrenches
- Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

18. Avoid Unintentional Starting
- Do not carry a plugged-in tool. Always disconnect from power source before moving.
- Be sure switches are off before connecting to a power source.

19. Outdoor Use Extension Cords
- When tool is used outdoors, use only extension cords intended for use outdoors and so marked.

20. Stay Alert
- Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- Do not use when taking medications that may cause drowsiness.

21. Check For Damaged Parts
- Before further use of the tool, a guard or other part that is damaged should be repaired and performance verified prior to operation.
- Check alignment of moving parts, binding of parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center.
- Do not use this tool if switches do not turn it on and off. Have defective switches replaced by authorized service center.

22. Never Operate Drill In An Explosive Environment
- Sparks are generated internally by the motor brushes during normal operation.

GROUNDING INSTRUCTIONS

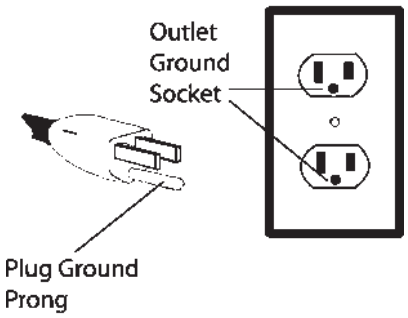
The d2 drill must be plugged into a three prong outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in diagram. If in doubt of proper grounding, contact a qualified electrician.

! WARNING!

A shock hazard can result from improperly connecting the grounding wire. Do not modify the electrical plug provided with tool. Never remove the grounding prong from the plug. If the cord or plug is damaged, have it repaired before using. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

⚠ WARNING!

DO NOT USE STEELMAX DRILLING MACHINES ON SURFACES OR MATERIALS BEING WELDED. DOING SO CAN RESULT IN PERSONAL INJURY AND/OR DAMAGE TO THE DRILLING MACHINE.



EXTENSION CORDS

Use only 3-wire extension cords that have 3-prong grounding-type plugs and 3-pole receptacles. Make sure extension cord is in good condition. Replace or repair damaged cords. When using an extension cord, limit length to 50ft. or less. Only use a cord of 12 gauge or larger diameter. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

SPECIAL INSTRUCTIONS

1. Read and follow operator's manual thoroughly. Instructions are intended as a guide in safe operating procedures and practices. Always contact SteelMax in the event any instruction is not clearly understood.
2. Never wear loose clothing or gloves when working near cutting area or machine arbor.
3. DO NOT touch rotating cutter or machine parts.
4. DO NOT use dull or broken cutters.
5. To reduce the risk of electrical shock, DO NOT remove or alter electrical panels or use machine in damp areas.
6. Always stop machine completely and unplug from power source before changing cutters, clearing swarf, filling coolant reservoir or performing maintenance.
7. Always wear eye protection. Any tool can shatter.
8. Always use safety strap provided with machine.
9. Always use proper tooling. Keep cutters securely fastened.
10. Beware of ejected slugs core at end of cut. They become HOT during the cut.
11. Keep all safety features functioning and working properly.
12. Use only authorized service centers for repairs.

OPERATING INSTRUCTIONS (BEFORE YOU BEGIN)

Remove all contents from packaging and inspect to ensure no damage was incurred during shipping.
Your SM-d2 package should include the following:

METAL TOOL SHIPPING BOX	SM-SKR-0300-13-00-00-0	1
SAFETY STRAP	SM-PAS-0272-13-00-00-0	1
HEX WRENCH 5	SM-KLC-000008	1
HEX WRENCH 6	SM-KLC-000009	1
D2 OPERATORS MANUAL	LIT- 016	1
SPOKE HANDLE WITH KNOBS	SM-DZW-0129-07-00-00-1	3
CHIP GUARD	C31300-120-00-00	1
REPLACEMENT BRUSHES	H01111-200-01-13	2
DRIFT PIN WEDGE	C31300-130-00-00	1
COOLANT BOTTLE	C31300-060-00-00	1
DRILLING MACHINE	SM--D2	1

! CAUTION!

BE SURE YOUR SM-D2 IS DISCONNECTED FROM THE POWER SOURCE BEFORE MAKING ADJUSTMENTS.

1. Assemble (3) spoke handles (item 11) to the pinion hub (item 01.03) NOTE: Pinion assembly is mounted on the left side of the machine frame. If necessary, it can be reversed to operate from the right side of the frame. To do so, remove the external retaining ring (item 01.07) from the right edge of the pinion. Using a 5mm wrench, loosen the (8) guide rail hex socket retaining bolts about 2-3 turn each (item 23-24) just enough for the pinion shaft to slide out of the machine frame without hitting the gear rack (item 02.01.02). Insert the pinion assembly from the opposite side of machine frame. Reassemble in reverse order and tighten all fasteners securely. Note: Coolant line will be in the way and may need to be moved and secured.

WHAT YOU SHOULD KNOW BEFORE YOU DRILL

1. Type of material to be drilled, Brinnell or Rockwell hardness, material thickness and position should all be determined to ensure proper selection of SteelMax cutting tools.

2. Remove any excessive scale or rust from surface to be drilled.

3. When drilling thin materials, SteelMax recommends placing a steel plate under the work piece and d2 magnet area to increase magnetic holding force. Failure to do so may result in dangerous operation.

4. Material that has been flame cut may become heat treated and therefore difficult to drill. Avoid drilling near such areas whenever possible.

5. Paste type cutter lubricant is available for using the d2 drill and annular cutters in the horizontal or inverted position. Consult you distributor for more information.

! **Caution:** Do not drill on material where welding is also simultaneously being performed. Drilling machine will be damaged.

! **Caution:** Powering drilling machine from generator without proper surge protection device between generator and drilling machine may cause damage to the circuitry in machine.

READY TO MAKE THE CUT

1. Insert the annular cutter in to the machine arbor, lining up the flats on the cutter shank with the set screws on the arbor. Secure the set screws making sure the screws are recessed in arbor body.

2. Fill the coolant reservoir with a water-soluble coolant. Do not overfill! If drilling horizontally or inverted, use coolant paste.

3. P[illegible] the work surface. Always use safety strap to prevent injury. Refer to the drawing b[illegible]

Position 1 / Low Speed

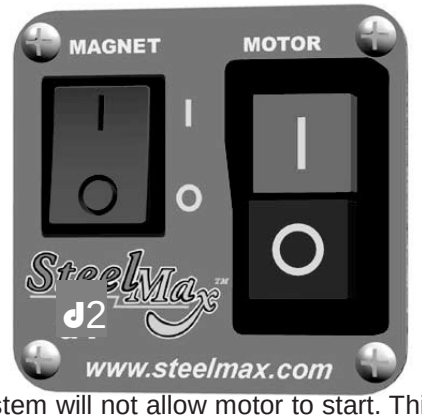
Position 2 / High Speed

4. If necessary, adjust the gearbox speed by turning the gear selector to the appropriate position. Position one (1) is used for cutters 1 1/8" or larger, and turns at 180 RPM. Position two (2) is used for cutters smaller than 1 1/8" and turns at 360 RPM. The arbor may need to be turned slightly to shift the gear selector.

5. Lower cutter to surface of material. Turn on coolant flow valve. Coolant flow will start when pilot pin is depressed. Lifting pilot pin off work surface will stop coolant flow. Always remember to close valve when not in use.

6. Position chip guard toward work area before drilling.

7. Place the drilling machine on the work piece, with pilot pin over the center of the hole to be cut.



8. Move the magnet "ON" switch to the ON position. The switch will illuminate to indicate DC power is going to the magnet.

9. Depress motor "ON" switch to start drill. If drill momentarily turns on but will not continue to run, check to make certain material is thick enough. Insufficient thickness can cause magnet to lose hold, causing an operator hazard. If necessary, clamp an additional section of steel to the work-piece to increase magnetic adhesion. If material thickness is less than 1/4" (6mm), the magnetic field control system will not allow motor to start. This system will turn OFF the motor after even minor movement of magnetic base. If holes must be made regularly in thin (less than 3/8") material, the magnetic field control system can be disabled permanently. (Consult Factory)

***Operational Note:** Models manufactured after 11-2006 have an electronic overload feature. If the drill experiences over-current due to excessive cutter penetration speeds, the circuit will stop the drill motor. If this should occur, simply reset the motor switch to the off position and then turn back on. Proceed with a slower feed rate without forcing the cutter.

! CAUTION!

AN ALTERNATE MEANS MUST BE USED TO SECURELY HOLD THE DRILL IN PLACE.
FAILURE TO DO SO CAN RESULT IN SERIOUS INJURIES!

9. To start a cut, apply pressure until the cutter has established an external grove. Continue with steady pressure through the remainder of the cut (Note: Do not peck drill when using annular cutters). The tools are designed to evacuate chips when drilling.

AFTER THE CUT

⚠ CAUTION! SLUG IS EXTREMELY HOT!

1. After the cut has finished, the slug should automatically eject from the cutter*. Slug can eject with significant force due to the pilot pin spring pressure. Always be prepared for the ejected slug.

2. Return motor to the full upright position, depress motor OFF button and wait until motor fully stops. Move magnet switch to the OFF position to release the magnetic base from the material.

*Note: If the slug does not eject after the cut, disconnect the machine from the power source and remove the cutter from the arbor body, then expel the slug. (Caution: Do not use the pilot pin as damage can result).

NORMAL MAINTENANCE

1. The SteelMax d2 drilling machine is equipped with new unique system for elimination of excess play in slide guides. This rail guide system completely eliminates maintenance or adjustment.

2. After every 250 hours of operation, check the condition of the (2) carbon brushes (03.16). If their length is less than 10 mm they should be replaced with new ones. Replacement of brushes is possible without removal of motor from the drill. Refer to Brush Replacement page for detailed instructions. Other repair work should only be performed by authorized service centers.

3. To prevent the machine from rusting (especially when used outdoors) all steel parts should be covered with thin layer of grease film.

4. Keep the magnet clean and free of chips, oil or other contaminants.

5. Occasionally check the magnet base for flatness to ensure proper magnetic holding force.

6. Replace any worn parts and tighten fasteners that become loose during normal usage.

MOTOR BRUSH REPLACEMENT

⚠ WARNING!

WHEN USING ELECTRIC TOOLS, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE RISK OF FIRE, ELECTRIC SHOCK AND PERSONAL INJURY. ALWAYS DISCONNECT POWER BEFORE SERVICING ANY POWER TOOL!

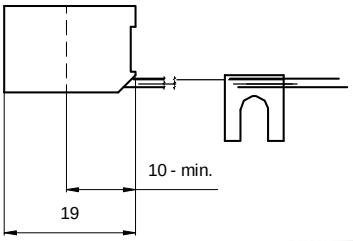
Motor Brush Replacement.

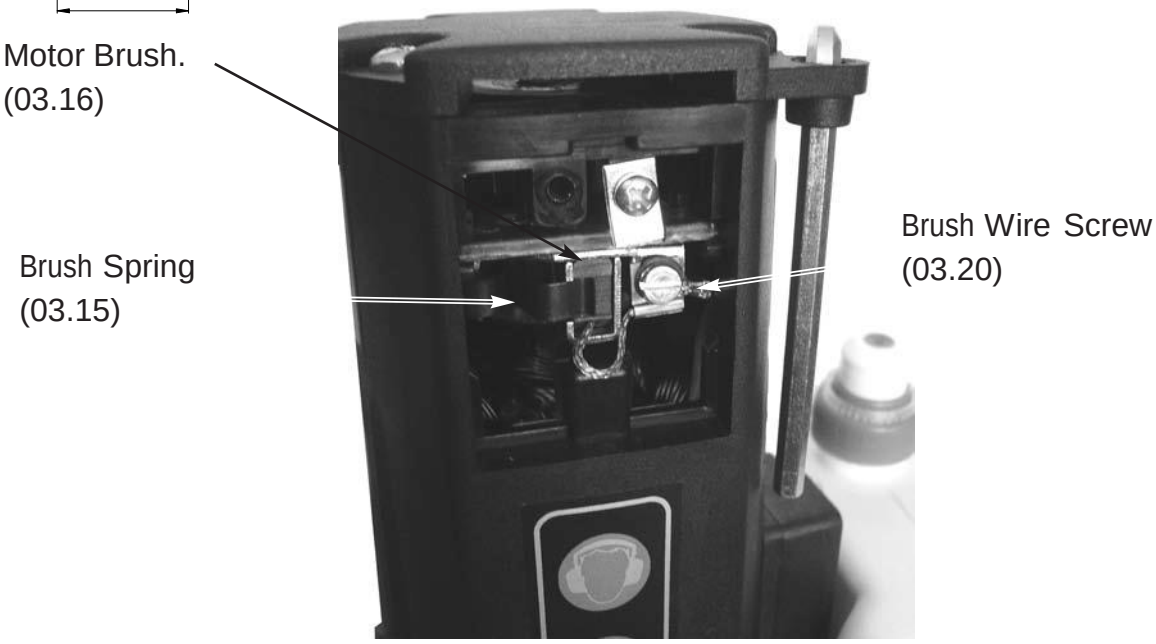
After every 250 hours of operation, check the condition of the (2) carbon brushes (03.16). If their length is less than 10 mm they should be replaced with new ones. Refer to the diagram below and exploded view drawing.

1. Replacement of brushes is possible without removal of motor from the drill. To replace the brushes, remove the 2 screws (03.18) on each side of the motor securing the motor brush cover (03.17).

2. Remove the 2 brush wire holder screws (03.20). Pull the brush spring straight out and carefully remove the brushes. Reverse the procedure to re-install. Note: if reinstalling existing brushes, note exact position and orientation. Never install a used brush upside down or motor damage could result

3. After replacement, new brushes should be run-in without load for about 20 min. Other repair work should only be performed by authorized service centers.





BASIC TROUBLESHOOTING

1. **Motor will not stay running.**
   - Magnet circuitry is designed to prevent run cycle in the event material “Hold” by magnet is insufficient. Clamp additional material beneath magnet to increase hold. “Run” switch may be manually held in to bypass this safety circuit. If operator chooses to use this “bypass” circuit, extreme caution must be used.
   - Models manufactured after 11-2006 have an electronic overload feature. If the drill experiences over-current due to excessive cutter penetration speeds, the circuit will stop the drill motor. If this should occur, simply reset the motor switch to the off position and then turn back on. Proceed with a slower feed rate without forcing the cutter.

2. **Magnetic base not holding securely.**
   - Material is too thin to engage magnet. The minimum necessary thickness is 1/4” (6 mm).
   - Surface of material being drilled must be free of chips, debris, rust and mill scale.
   - Cutter exceeds machine’s rated capacity.
   - Check magnet face for unevenness, nicks and burrs.
   - Welding equipment connected to material being drilled.

3. **Motor slows when drilling.**
   - Extension cord is too long or too thin.
   - Excessive down-force during drilling cycle will cause motor to slow and overheat.
   - Cutter dull.

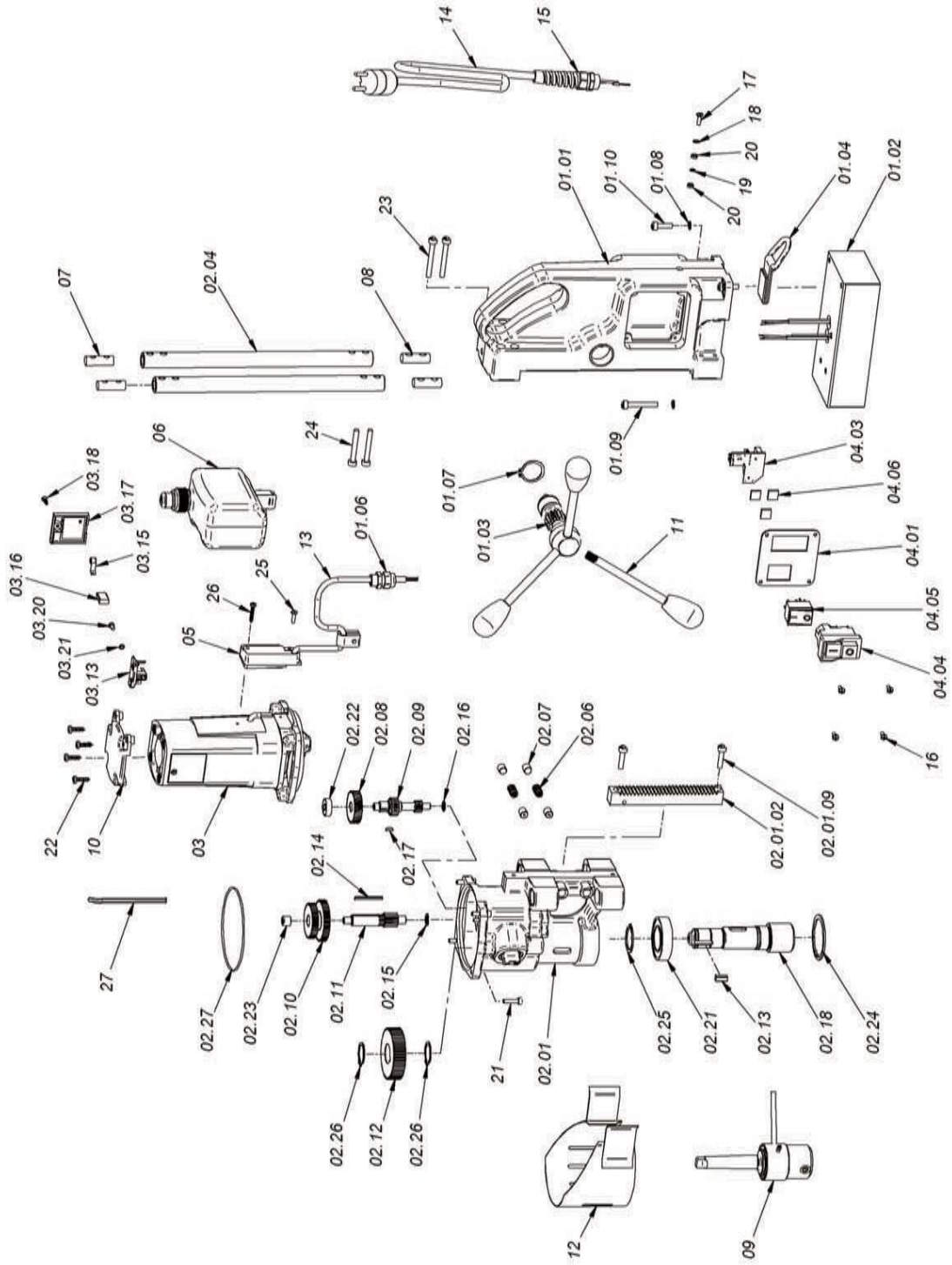
4. **Coolant not flowing.**
   - Coolant system is gravity dependent, machine must be in a upright position to operate properly.
   - Dirt or debris in coolant tank.
   - Incorrect pilot pin.
   - Vent hole in coolant tank cap blocked.

5. **Slugs not ejecting from cutter.**
   - Lack of coolant causing slugs to expand in cutter bore.
   - Incorrect coolant type.
   - Incorrect pilot pin.
   - Broken pilot pin.
   - Dull cutter.

6. **Breaking cutters**
   - Coolant flow must be supplied to interior of cutter.
   - Excessive feed pressure being applied.
   - Excessive material hardness.
   - Drilling stacked materials with incorrect cutter.
   - Dull cutters, dull or chipped cutting edges require excessive feed pressure.

7. **Oversized or rough holes**
   - Insufficient coolant flow.
   - Excessive feed pressure.
   - Dull cutter.

EXPLODED VIEWS

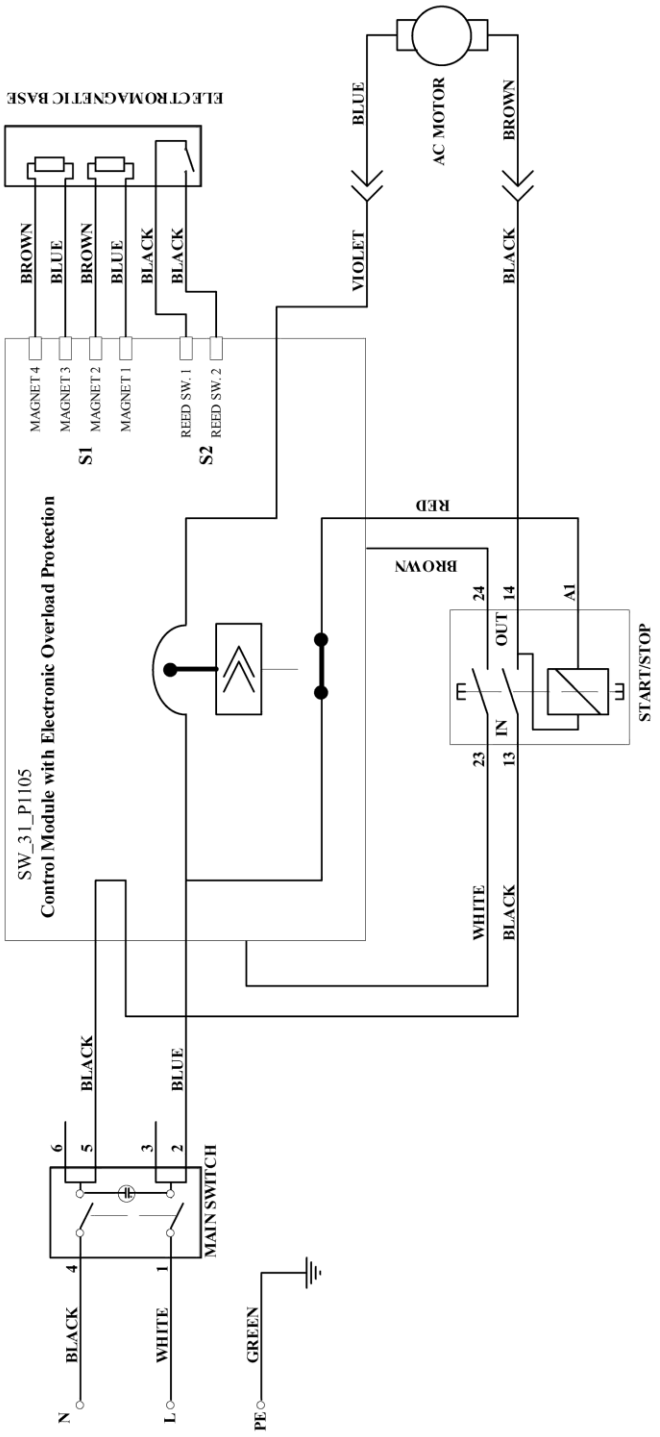


Item	Description	Part Number	Qty
01.01	MAIN BODY ASSEMBLY	SM-KRP-0300-01-01-00-0	1
01.02	ELECTROMAGNETIC BASE	SM-PDS-0300-01-02-00-0	1
01.03	PINION SHAFT ASSEMBLY	SM-WLK-0300-01-03-00-0	1
01.04	D-RING STRAP	SM-PAS-0272-01-03-00-0	1
01.06	STRAIN RELIEF PG9	SM-DLW-000005	1
01.07	EXTERNAL RETAINING RING 28Z	SM-PRS-000019	1
01.08	SPRING WASHER 6.1	SM-PDK-000048	3
01.09	HEX SOCKET BOLT M6X40	SM-SRB-000125	2
01.10	HEX SOCKET BOLT M6X20	SM-SRB-000113	2
02.01	GEARBOX HOUSING ASSY.	SM-KRP-0300-02-01-00-0	1
02.01.02	GEAR RACK	SM-LST-0300-02-01-02-0	1
02.01.09	HEX SOCKET BOLT M6X25	SM- SRB-000116	1
02.04	GUIDE	SM-RRA-0300-02-04-00-0	2
02.06	BRAKE SPRING	SM-SPR-0300-02-06-00-0	2
02.07	BRAKE	SM-HML-0271-09-01-00-1	4
02.08	HELICAL GEAR 46T	SM-KOL-0211-00-06-00-0	1
02.09	GEAR SHAFT 12T; 20T	SM-WLK-0211-00-07-00-0	1
02.10	GEAR 52T; 44T	SM-KOL-0211-00-08-00-0	1
02.11	GEARSHAFT 12T	SM-WLK-0211-09-00-0	1
02.12	GEAR 52T	SM-KOL-2011-00-10-00-0	1
02.13	SQUARE KEY 6X6X15	SM-WPS-0211-00-13-00-0	1
02.14	SQUARE KEY 3X3X36	SM-WPS-0211-00-14-00-0	1
02.15	WASHER 1 10,1X15X1,1	SM-PDK-0211-00-15-00-0	1
02.16	WASHER 11 8,1X13X1,1	SM-PDK-0211-00-16-00-0	1
02.17	KEY, WOODRUFF 3X3,7	SM-WPS-0211-00-17-00-0	1
02.18	SPINDLE	SM-WRZ-0211-00-25-00-0	1
02.21	BEARING 6006 ZZ	SM-LOZ-000049	1
02.22	BEARING 608 2Z	SM-LOZ-000055	1
02.23	BEARING, NEEDLE RHNA 081210	SM-LOZ-000006	1
02.24	INTERNAL RETAINING RING 55W	SM-PRS-000033	1
02.25	EXTERNAL RETAINING RING 30Z	SM-PRS-000021	1
02.26	EXTERNAL RETAINING RING 25Z	SM-PRS-000017	2
02.27	SEAL O-RING 102X2	SM-PRS-000086	1
03	MOTOR ASSEMBLY	SM-SLN-0300-03-00-00-0	1
03.13	BRUSH HOLDER	C-44290	2
03.15	SPRING, FLAT	0652-620-460	2

03.16	MOTOR BRUSH	SM-SCZ-000007	2
03.17	COVER	SM-PKR-000015	2
03.18	SCREW TW4X13	SM-WKR-000009	2
03.21	SPRING WASHER 4,2X0,5	C-42644	1
04	PANEL ASSEMBLY	SM-PNL-0300-04-00-00-3	1
04.01	PANEL PLATE	SM-MSK-0257-04-01-00-0	1
04.03	ELECTRONIC CONTROLLER SW-31/120V	SM-STR-0257-04-10-00-0	1
04.04	MOTOR ON/OFF SWITCH	SM-WLC-000005	1
04.05	MAIN SWITCH, LIGHTED 4 CONN.	SM-PNK-000013	1
04.06	LOCKING PILLAR	SM-MKR-000001	3
04.07*	GROUP WIRES 1 (Not Shown)	SM-WZK-0272-04-14-00-0	1
04.14	GROUP WIRES 11 (Not Shown)	SM-WZK-0272-04-13-00-0	1
05	MOTOR CORD ASSEMBLY	SM-PWD-0300-05-00-00-0	1
06	COOLANT BOTTLE ASSEMBLY	SM-BTL-0300-06-00-00-0	1
06.05	COOLANT VALVE (Not Shown)	SM-TLJ-0271-02-04-00-0	1
06.10	PLASTIC HOSE 4MM (Not Shown)	SM-WAZ-000004	1
07	PLUG WITH THREAD	SM-KRK-0300-07-00-00-0	2
08	PLUG	SM-KRK-0300-08-00-00-0	2
09	ARBOR SET MT2	SM-UCW-0220-00-00-02-0	1
10	FIELD FRAME COVER	SM-PKR-0279-02-06-00-0	1
11	SPOKE HANDLE INCLUDING KNOB (ASSY)	SM-DZW-0129-07-00-00-1	3
12	CHIP GUARD	SM-OSL-0300-12-00-00-0	1
13	PROTECTIVE SPRING	SM-SPR-0257-02-03-00-0	1
14	POWER CORD / 115V	SM-SZN-0075-00-51-00-0	1
15	STRAIN RELIEF PG11	SM-DLW-000007	1
16	CROSS RECESSED SCREW M4X10	SM-WKR-000183	4
17	CROSS RECESSED SCREW M4X16	SM-WKR-000112	1
18	WASHER, EXTERNAL METRIC 4.3 DIN 6798	SM-PDK-000061	1
19	SPRING WASHER 4,1	SM-PDK-000043	1
20	HEX NUT M4	SM-NKR-000013	2
21	HEX SOCKET BOLT M5X20	SM-SRB-000086	4
22	SELF TAPPING SCREW 5X20	SM-WKR-000011	4
23	HEX SOCKET BOLT M6X50	SM-SRB-000128	4
24	HEX SOCKET BOLT M6X45	SM-SRB-000126	4
25	CROSS RECESSED SCREW M4X14	SM-WKR-000186	1
26	SELF TAPPING SCREW 3,9X25	SM-WKR-000003	1
27	HEX WRENCH 5	SM-KLC-000008	1
28	HEX WRENCH 6 (Not Shown)	SM-KLC-000009	1
29	SAFETY STRAP (Not Shown)	SM-PAS-0272-13-00-00-0	1
30	WEDGE MT2 (Not Shown)	SM-KLN-0103-01-00-00-0	1
31	METAL SHIPPING BOX (Not Shown)	SM-SKR-0300-13-00-00-0	1

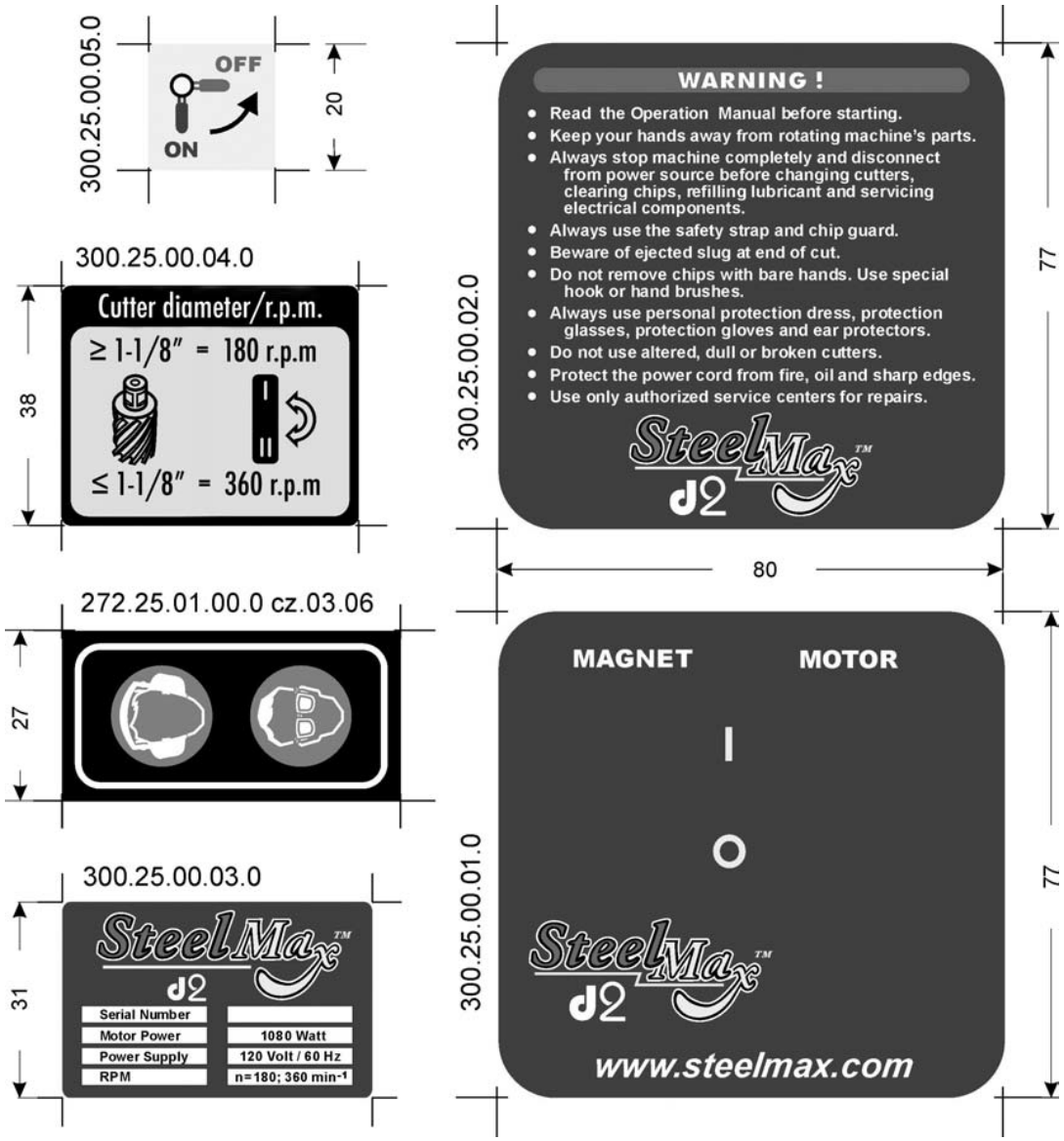
SteelMax® d2 Wiring Diagram

SteelMax d2 Drilling Machine wiring diagram



SteelMax® d2 Portable Magnetic Drilling Machine Labels

The figure below shows all labels included on the d2 drilling machine. As a required item for machine safety, contact the factory for replacement labels if they become damaged.



ACCESSORY MT2 1/2 INCH ADJUSTABLE CHUCK OPTION

The d2 drill can be used to drill blind or small diameter holes through the use of a MT2 1/2 inch adjustable chuck option (Part # SM-DC-MT2-13). This option significantly expands the utility of the d2 drill.

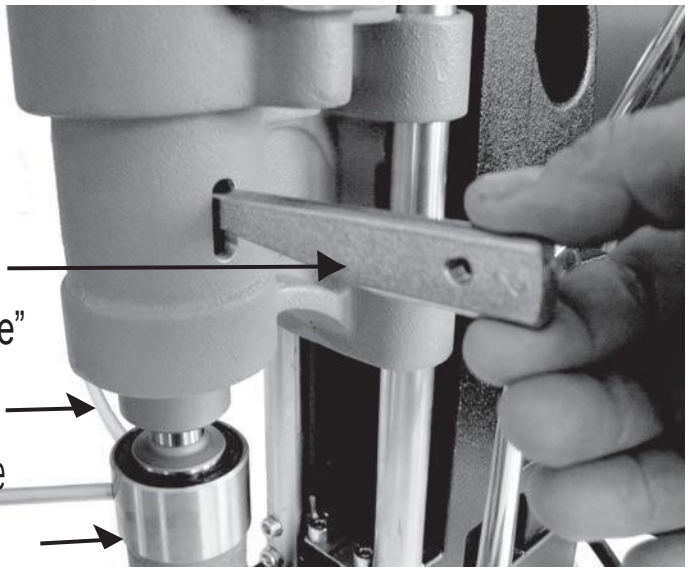
To remove the standard d2 arbor and install the 1/2 inch adjustable chuck adapter, proceed

as follows:

The d2 drill cutter arbor is removable with the use of the supplied drift or “wedge”.

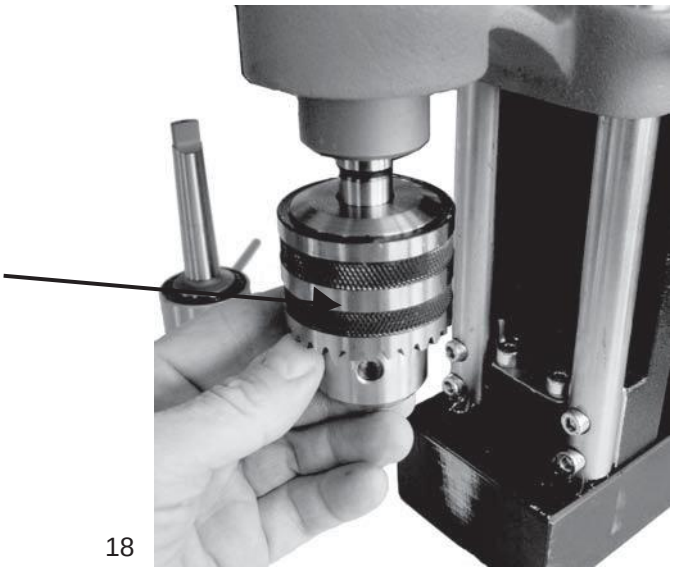
CAUTION! MAKE CERTAIN MOTOR IS TURNED OFF AND UNPLUGGED BEFORE PROCEEDING.

- Turn the arbor by hand until the chuck is aligned so the Drift “Wedge” can enter slot. See photo below.
- Lightly tap end of drift wedge with a plastic mallet. Arbor should drop out easily.
- Lift the coolant bottle off the rest by lifting straight up. Store coolant bottle, coolant line and arbor.
- Align the optional 1/2 inch adjustable chuck and gently inserting it into place where the previous arbor was installed.
- Lightly tap it into place with a plastic mallet. The chuck should remain in place



MT2 Arbor

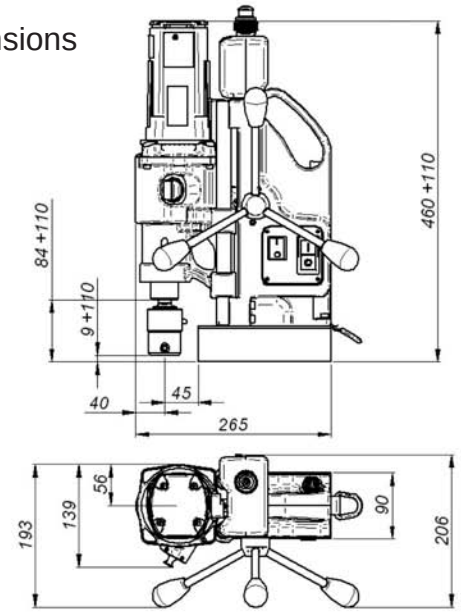
Optional MT2 1/2 inch adjustable Chuck



Dimensions and specifications

Type	SteelMax d2
Machine speeds (under load):	360/180 rpm
Supply voltage:	110-120V/ 60 Hz
Tolerance of supply voltage	+/- 5%
Motor power	1080 W
Spindle bore	MT2
Arbor	3/4" Weldon (19.05 mm)
Capacities: max. milling cutter diameter	2" (50 mm)
max. milling/drilling depth	2" (50 mm)
Twist Drill diameter	7/8"
Magnet Dead Lift (on 1" plate)	(11800 N)
Dimensions:	
electromagnetic base	3.5"x 7" (90x180mm)
heights:	- slide up 22.5" (570 mm) - slide down 18.1" (460 mm)
Slide stroke	4 1/4" (110 mm)
Width	8.1" (210 mm)
Length	10.5" (265 mm)
C/L Pilot to magnet face	1 3/4" (45mm)
C/L Pilot to motor face	1 5/8" (40mm)
Length of the power cord	3.28 yd (3 m)
Total weight	37 lbs (16.7 kg)
Noise level	85 dB
Surrounding temperature	32°F-104°F (0°C-40°C)

d2 Dimensions



SteelMax® m2al

ANNULAR CUTTERS

Cutter Dia. (inch)	1" D.O.C.	2" D.O.C.
7/16	SM-AC-0438-1	SM-AC-0438-2
1/2	SM-AC-0500-1	SM-AC-0500-2
9/16	SM-AC-0563-1	SM-AC-0563-2
5/8	SM-AC-0625-1	SM-AC-0625-2
11/16	SM-AC-0688-1	SM-AC-0688-2
3/4	SM-AC-0750-1	SM-AC-0750-2
13/16	SM-AC-0813-1	SM-AC-0813-2
7/8	SM-AC-0875-1	SM-AC-0875-2
15/16	SM-AC-0938-1	SM-AC-0938-2
1	SM-AC-1000-1	SM-AC-1000-2
1-1/16	SM-AC-1063-1	SM-AC-1063-2
1-1/8	SM-AC-1125-1	SM-AC-1125-2
1-3/16	SM-AC-1188-1	SM-AC-1188-2
1-1/4	SM-AC-1250-1	SM-AC-1250-2
1-5/16	SM-AC-1313-1	SM-AC-1313-2
1-3/8	SM-AC-1375-1	SM-AC-1375-2
1-7/16	SM-AC-1438-1	SM-AC-1438-2
1-1/2	SM-AC-1500-1	SM-AC-1500-2
1-9/16	SM-AC-1563-1	SM-AC-1563-2
1-5/8	SM-AC-1625-1	SM-AC-1625-2
1-11/16	SM-AC-1688-1	SM-AC-1688-2
1-3/4	SM-AC-1750-1	SM-AC-1750-2
1-13/16	SM-AC-1813-1	SM-AC-1813-2
1-7/8	SM-AC-1875-1	SM-AC-1875-2
1-15/16	SM-AC-1938-1	SM-AC-1938-2
2	SM-AC-2000-1	SM-AC-2000-2
2-1/16	SM-AC-2063-1	SM-AC-2063-2
2-1/8	SM-AC-2125-1	SM-AC-2125-2
2-3/16	SM-AC-2188-1	SM-AC-2188-2
2-1/4	SM-AC-2250-1	SM-AC-2250-2
2-5/16	SM-AC-2313-1	SM-AC-2313-2
2-3/8	SM-AC-2375-1	SM-AC-2375-2

YOUR STEELMAX® DISTRIBUTOR

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PRODUCT REGISTRATION AND WARRANTY CARD

Thank you for purchasing a SteelMax® product!
Please fill out this form and return promptly so that we may register your purchase.

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FAX 303.690.9172
STEELMAX.COM

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Model Serial# Date of Purchase

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Safety features ☐	Magazine ad ☐	Availability ☐
Recommendation ☐	Reputation of retailer ☐	
Style/Appearance ☐	Quality/Durability ☐	Other ☐

In your opinion, what is the BEST industry publication you regularly read? _____

Is this: A first time purchase? ☐ An additional unit? ☐ A replacement unit? ☐ For which brand? _____

Additional comments: _____

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